

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 25, 2004 (Paper No. 6). Claims 1 to 18 are pending in the application, of which Claims 1, 7 and 13 are independent. Reconsideration and further examination are respectfully requested.

The title was objected to as allegedly not being descriptive. A new title is submitted herewith, and approval of the new title is hereby requested.

Claims 2, 5, 8 and 11 were objected to for various informalities, all of which have been addressed herein. Withdrawal of these objections is therefore respectfully requested.

Claims 1, 2, 6 to 8, 12 to 14 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,134,568 (Tonkin). Claims 3, 5, 9, 11, 15 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tonkin in combination with U.S. Patent No. 5,781,175 (Hara). Claims 4, 10 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tonkin in combination with U.S. Patent No. 5,764,227 (Ishimine). Reconsideration and withdrawal of these rejections are respectfully requested.

The present invention concerns generation of print preview displays. In accordance with the present invention, a print preview display system determines a scale at which the page with the maximum length in a predetermined direction falls within a frame of a predetermined size. The size of multiple pages included in the print job are adjusted based on the determined scale and the adjusted or “zoomed” images of the multiple pages are displayed. This results in a display wherein the displayed multiple pages have the same ratio of sizes as the corresponding multiple pages printed on sheets having designated sizes. Moreover, the scale for zooming the multiple pages is changed in accordance with a combination of the multiple pages included in the print job allowing more efficient use of the display space for a print preview.

Turning now to specific claim language, amended independent Claim 1 is directed to a print preview display method comprising the steps of: recognizing a maximum length in a predetermined direction from a page included in a print job; determining a scale at which the page with the maximum length in the predetermined direction falls within a frame of a predetermined size in accordance with the maximum length in the predetermined direction recognized in the step of recognizing; zooming multiple pages included in the print job based on the scale determined in the step of determining; and displaying images of the multiple pages zoomed in the step of zooming, wherein the scale determined in the step of determining is changed in accordance with a combination of the multiple pages included in the print job, and wherein the multiple pages are zoomed in the step of zooming while maintaining a relationship of sizes among the multiple pages. In this manner, a system in accordance with the present invention may generate a print preview wherein the displayed multiple pages have the same ratio of sizes as the corresponding multiple pages printed on sheets of paper and display space for the print preview is used efficiently.

In contrast, Tonkin discloses a system that enables a user to preview a document by providing a user interface and inputting information specifying an arrangement of components to create the document. The components include printed pages, tab pages, blank pages, a front cover, a back cover and a binding. Digital images of the components are obtained, then an image of the document is generated by combining the obtained digital images of the components. The content image data is scaled when the user has specified a different page size than that of the source file or when the images are to be displayed in a reduced size such as a thumbnail. (Column 7, Lines 28 to 37.) However, Tonkin is not concerned with determining a scaling for a print preview for multiple pages in a print job. Instead, the system of Tonkin relies on paper

sizes included in the print files for determining the current size of a document and paper sizes selected by a user to determine the required size of a document. Therefore, Tonkin does not disclose generating a preview display by recognizing a maximum length in a predetermined direction in a page included in a print job and then using the recognized maximum length to scale multiple pages in the print job.

Hara discloses an image search apparatus which is capable of displaying desired pages of plural sets of images, stored in a memory as a search result, in a reduced size on a display unit. This allegedly allows a user to quickly search for a document containing a particular image. However, as Hara is not concerned with generating a print preview display, the system of Hara does not need to determine a scaling for a print preview for multiple pages in a print job. Therefore, Hara does not disclose generating a preview display by recognizing a maximum length in a predetermined direction in a page included in a print job and then using the recognized maximum length to scale multiple pages in the print job.

Ishimine discloses a document display apparatus which displays a document containing a plurality of pages, in such a manner that one page lies on top of another in a “cascade” fashion. This allegedly allows a user to quickly identify an electronic document and then select pages of the document as if the electronic document were a physical document. As with Hara, Ishimine is not concerned with generating a print preview display and does not disclose generating a preview display by recognizing a maximum length in a predetermined direction in a page included in a print job and then using the recognized maximum length to scale multiple pages in the print job.

Applicants submit that Tonkin, Hara and Ishimine, neither alone nor in combination, disclose recognizing a maximum length in a predetermined direction from a page

included in a print job and determining a scale at which the page with the maximum length in the predetermined direction falls within a frame of a predetermined size in accordance with the recognized maximum length in the predetermined direction. As such, the combination of Tonkin, Hara and Ishimine cannot attain the effect of the claimed invention wherein the multiple pages of a print job are displayed in a predetermined frame while maintaining a relationship of sizes between the multiple pages. Moreover, no permissible combination of Tonkin, Hara and Ishimine discloses changing the scale for zooming multiple pages in a print job in accordance with a combination of the multiple pages included in the print job. Therefore, Applicants submit that independent Claim 1 is in condition for allowance and respectfully request same.

Independent Claim 7 is directed to a print control apparatus unit in accordance with the method of Claim 1. Applicants submit that the foregoing discussion with regard to Claim 1 applies equally to Claim 7. Therefore, Applicants submit that Claim 7 is also in condition for allowance and respectfully request same.

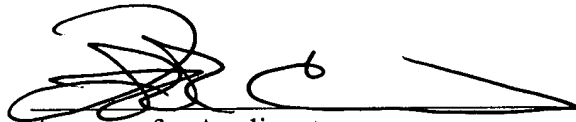
Independent Claim 13 is directed to a computer readable storage medium that stores a computer program implementing the method of Claim 1. Applicants submit that the foregoing discussion with regard to Claim 1 applies equally to Claim 13. Therefore, Applicants submit that Claim 13 is also in condition for allowance and respectfully request same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Frank L. Cire', with a long horizontal line extending to the right.

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